



6712-01

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 90

[WT Docket No. 11-69 and ET Docket 09-234; FCC 12-114]

Private Land Mobile Radio Rules

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: In this document, the Commission modifies its rules to permit the certification and use of Terrestrial Trunked Radio (TETRA) equipment. These amendments are necessary in order to permit implementation of TETRA technology in the United States.

DATES: Effective [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

FOR FURTHER INFORMATION CONTACT: Tim Maguire, Mobility Division, Wireless Telecommunications Bureau at (202) 418-2155, or TTY (202) 418-7233.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Report and Order (R&O), adopted September 19, 2012, and released September 21, 2012. The full text of this document is available for inspection and copying during normal business hours in the FCC Reference Center, 445 12th Street, SW, Washington, DC 20554. The complete text may be purchased from the Commission's copy contractor, Best Copy and Printing, Inc., 445 12th Street, SW, Room CY-B402, Washington, D.C. 20554. The full text may also be downloaded at: www.fcc.gov. Alternative formats are available to

persons with disabilities by sending an e-mail to fcc504@fcc.gov or by calling the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

Summary

1. The Commission, in effort to bring into conformity all of its part 90 technical rules, via the NPRM, published at 76 FR 27296, May 11, 2011, proposed to amend part 90 of its rules to accommodate TETRA technology. This R&O amends part 90 of the Commission's rules that govern bandwidth limits and emission masks to permit the certification and use of Terrestrial Trunked Radio (TETRA) equipment in both the 450-470 MHz portion of the UHF band, and in the Business/Industrial Land Transportation 800 MHz band channels (809-824/854-869) that are not in the National Public Safety Planning Advisory Committee (NPSPAC) portion of the band. These amendments will give private land mobile radio (PLMR) licensees additional equipment alternatives without increasing the potential for interference or other adverse effects on other licensees.

I. Procedural Matters

A. Final Regulatory Flexibility Analysis

2. As required by the Regulatory Flexibility Act of 1980, as amended (RFA), and Initial Regulatory Flexibility Analysis (IRFA) was included in the Notice of Proposed Rulemaking in WT Docket No. 11-69 and ET Docket No. 09-234. The Commission sought written public comment on the proposals in these dockets, including comment on the IRFA. The Commission has prepared a Final Regulatory Flexibility Analysis ("FRFA") of the possible significant economic impact on small entities by the

policies and rules addressed in this document. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.

B. Final Paperwork Reduction Act Analysis

3. The R&O does not contain proposed new or modified information collection requirements.

C. Congressional Review Act

4. The Commission will send a copy of this Report and Order to Congress and the Government Accountability Office pursuant to the Congressional Review Act, see 5 U.S.C. 801(a)(1)(A).

II. Need for, and Objectives of, the Final Rules:

5. The rules adopted in this Report and Order are intended to amend the Part 90 rules for authorized bandwidth and emission masks in order to permit the implementation in the United States of land mobile radio equipment utilizing Terrestrial Trunked Radio (TETRA) technology. TETRA is a spectrally efficient digital technology that we believe can provide valuable benefits to land mobile radio users.

III. Summary of Significant Issues Raised by Public Comments in Response to the IRFA:

6. No parties have raised significant issues in response to the IRFA.

IV. Description and Estimate of the Number of Small Entities to which the Proposed Rules Will Apply:

7. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules and policies, if adopted. See 5 U.S.C. 603(b)(3). The RFA generally defines the term “small

entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.” See 5 U.S.C. 601(6). In addition, pursuant to 5 U.S.C. 601(3) and 15 U.S.C. 632, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act. A “small business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.

8. Nationwide, there are a total of 22.4 million small businesses, according to SBA data. A “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.” See SBA, Programs and Services, SBA Pamphlet No. CO-0028, at p. 40 (July 2002). According to the – Independent Section, The New Nonprofit Almanac & Desk Reference (2002), Nationwide, there were approximately 1.6 million small organizations. The term “small governmental jurisdiction” is defined generally as “governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.” See U.S.C. 601(5). Census Bureau data for 2002 indicate that there were 87,525 local governmental jurisdictions in the United States.¹ We estimate that, of this total, 84,377 entities were “small governmental jurisdictions.”² Thus, we estimate that most governmental jurisdictions are small. Below, we further describe and estimate the number of small entities, applicants and licensees, that may be affected by our action.

¹ U.S. Census Bureau, Statistical Abstract of the United States: 2006, Section 8, page 272, Table 415.

² We assume that the villages, school districts, and special districts are small and total 48,558. See U.S. Census Bureau, Statistical Abstract of the United States: 2006, section 8, p. 273, Table 417. For 2002, Census Bureau data indicate that the total number of county, municipal, and township governments nationwide was 38,967, of which 35,819 were small. Id.

9. Private Land Mobile Radio Licensees. PLMR systems serve an essential role in a range of industrial, business, land transportation, and public safety activities. These radios are used by companies of all sizes operating in all U.S. business categories, and are often used in support of the licensee's primary (non-telecommunications) business operations. For the purpose of determining whether a licensee of a PLMR system is a small business as defined by the SBA, we use the broad census category, Wireless Telecommunications Carriers (except Satellite). This definition provides that a small entity is any such entity employing no more than 1,500 persons. See 13 CFR 121.201, NAICS code 517210. The Commission does not require PLMR licensees to disclose information about number of employees, so the Commission does not have information that could be used to determine how many PLMR licensees constitute small entities under this definition. We note that PLMR licensees generally use the licensed facilities in support of other business activities, and therefore, it would also be helpful to assess PLMR licensees under the standards applied to the particular industry subsector to which the licensee belongs. See 13 CFR 121.201.

10. As of March 2010, there were 424,162 PLMR licensees operating 921,909 transmitters in the PLMR bands below 512 MHz. We note that any entity engaged in a commercial activity is eligible to hold a PLMR license, and that any revised rules in this context could therefore potentially impact small entities covering a great variety of industries.

11. RF Equipment Manufacturers. The Census Bureau defines this category as follows: "This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of

products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.” See U.S. Census Bureau, 202 NAICS Definitions, “334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing”: <http://www.census.gov/epcd/naics02/def/NDEF334.HTM#N3342>. The SBA small business size standard for Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing is all such firms having 750 or fewer employees. See 13 CFR 121.201, NAICS code 334220. According to Census Bureau data for 2007, there were a total of 919 establishments in this category that operated for the entire year. Of this total, 771 had fewer than 100 employees and 148 had more than 100 employees. See http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-fds_name=EC0700A1&-skip=4500&-ds_name=EC0731SG3&-lang=en. Thus, under this size standard, the majority of firms can be considered small.

V. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

12. There are no projected reporting, recordkeeping or other compliance requirements.

VI. Steps Taken to Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered

13. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives: (1) the establishment of differing compliance or reporting requirements or

timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.

See 603(c)(1)-(4).

14. None of the decisions in this Report and Order impose any adverse burden of significant economic impact on small entities. Accordingly, there is no need to consider significant alternatives.

VII. Federal Rules That May Duplicate, Overlap, or Conflict with the Proposed Rules

15. None.

16. Pursuant to sections 1, 4(i), 303(f), 303(g), and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. 151, 154(i), 303(f), 303(g), and 303(r), this Report and Order IS ADOPTED.

17. Part 90 of the Commission's rules IS AMENDED as set forth below, and will become effective [INSERT DATE 30 DAYS AFTER THE DATE OF PUBLICATION IN THE FEDERAL REGISTER].

18. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Report and Order, including

the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

List of Subjects in 47 CFR Part 90

Radio.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch,
Secretary.

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR part 90 as follows:

Part 90 – Private Land Mobile Radio Services

1. The authority citation for part 90 continues to read as follows:

Authority: Sections 4(i), 11, 303(g), 303(r), and 332(c)(7) of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 161, 303(g), 303(r), 332(c)(7).

2. Section 90.209 is amended by adding footnote 6 to the table in paragraph (b)(5) to read as follows:

§ 90.209 Bandwidth limitations.

* * * * *

(b) * * *

(5) * * *

STANDARD CHANNEL SPACING/BANDWIDTH

Frequency band (MHz)	Channel spacing (kHz)	Authorized bandwidth (kHz)
* * *	* *	* *
406-512 ²	¹ 6.25	^{1,3,6} 20/11.25/6
* * *	* *	* *
809-824/854-869	25	⁶ 20
* * *	* *	* *

¹ For stations authorized on or after August 18, 1995.

² Bandwidths for radiolocation stations in the 420-450 MHz band and for stations operating in bands subject to this footnote will be reviewed and authorized on a case-by-case basis.

³ Operations using equipment designed to operate with a 25 kHz channel bandwidth will be authorized a 20 kHz bandwidth. Operations using equipment designed to operate with a 12.5 kHz channel bandwidth will be authorized a 11.25 kHz bandwidth. Operations using equipment designed to operate with a 6.25 kHz channel bandwidth will be authorized a 6 kHz bandwidth. All stations must operate on channels with a bandwidth of 12.5 kHz or less beginning January 1, 2013, unless the operations meet the efficiency standard of § 90.203(j)(3).

* * * * *

⁶ Operations using equipment designed to operate with a 25 kHz channel bandwidth may be authorized up to a 22 kHz bandwidth if the equipment meets the Adjacent Channel Power limits of § 90.221.

* * * * *

3. Section 90.210 is amended by adding footnote 5 to the table to read as follows:

§ 90.210 Emission masks.

* * * * *

APPLICABLE EMISSION MASKS

Frequency band (MHz)	Mask for equip- ment with Audio low pass filter	Mask for equip- ment without audio low pass filter
* * *	* *	* *

421-512 ^{2, 5}	B, D, or E	C, D, or E
* * *	* *	* *
809-824/854-869 ^{3, 5}	B	G
* * *	* *	* *

* * * * *

² Equipment designed to operate with a 25 kHz channel bandwidth must meet the requirements of Emission Mask B or C, as applicable. Equipment designed to operate with a 12.5 kHz channel bandwidth must meet the requirements of Emission Mask D, and equipment designed to operate with a 6.25 kHz channel bandwidth must meet the requirements of Emission Mask E.

³ Equipment used in this licensed to EA or non-EA systems shall comply with the emission mask provisions of § 90.691.

* * * * *

⁵ Equipment may alternatively meet the Adjacent Channel Power limits of § 90.221.

* * * * *

4. Add § 90.221 to subpart I to read as follows:

§ 90.221 Adjacent channel power limits.

(a) For the frequency bands indicated below, operations using equipment designed to operate with a 25 kHz channel bandwidth may be authorized up to a 22 kHz bandwidth if the equipment meets the adjacent channel power (ACP) limits below. The table specifies a value for the ACP as a function of the displacement from the channel center frequency and a measurement bandwidth of 18 kHz.

(b) (1) Maximum adjacent power levels for frequencies in the 450-470 MHz band:

Frequency Offset	Maximum ACP (dBc) for devices 1 watt and less	Maximum ACP (dBc) for devices above 1 watt
25 kHz	-55 dBc	-60 dBc
50 kHz	-70 dBc	-70 dBc
75 kHz	-70 dBc	-70 dBc

(2) In any case, no requirement in excess of -36 dBm shall apply.

(c) (1) Maximum adjacent power levels for frequencies in the 809-824/854-869 MHz band:

Frequency Offset	Maximum ACP (dBc) for devices less than 15 watts	Maximum ACP (dBc) for devices 15 watts and above
25 kHz	-55 dBc	-55 dBc
50 kHz	-65 dBc	-65 dBc
75 kHz	-65 dBc	-70 dBc

(2) In any case, no requirement in excess of -36 dBm shall apply.

(d) On any frequency removed from the assigned frequency by more than 75 kHz, the attenuation of any emission must be at least $43 + 10 \log (P_{\text{watts}})$ dB.

[FR Doc. 2012-24792 Filed 10/09/2012 at 8:45 am; Publication Date: 10/10/2012]